Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A method for monitoring torque in an electric motor having a power source connected thereto, the method comprising:

measuring current of the motor;

determining speed of the motor;

determining a first torque, the first torque being a function of at least the measured current;

determining power output from the power source;

determining a power loss for the motor;

determining a second torque, the second torque being a function of at least the power output from the power source, the determined power loss, and the motor speed; and

comparing the first torque to the second torque when the motor speed is above a predetermined speed.

2. (original) The method of claim 1, wherein comparing the first torque to the second torque includes calculating a difference between the first and second torques, and comparing the difference to a first predetermined torque.

3. (original) The method of claim 1, the power source having at least one additional electrical load other than the motor, wherein the power loss is determined from at least one of the following, power consumed by the at least one additional electrical load, an electrical power loss of the motor, and a mechanical power loss of the motor.

4. (original) The method of claim 1, further comprising:

determining a first motor power, the first motor power being a function of at least the power output from the power source and the determined power loss;

determining a second motor power, the second motor power being a function of at least motor voltage and motor current; and

comparing the first motor power to the second motor power when the motor speed is at or below the predetermined speed.

5. (original) The method of claim 4, wherein comparing the first motor power to the second motor power includes calculating a difference between the first and second motor powers, and comparing the difference to a predetermined motor power.

6. (original) The method of claim 1, the motor being a three phase motor having three motor currents, the method further comprising verifying the motor current measurement, the verification including summing the three motor currents and comparing the current sum to a predetermined current value.

7. (original) The method of claim 1, wherein the motor speed is measured with at least one sensor configured to measure an angular position of the motor, and the motor speed is determined by measuring change in the angular position of the motor over a known period of time.

8. (original) The method of claim 1, the motor receiving a torque command, the method further comprising calculating a difference between the first torque and the torque command, and comparing the difference to a second predetermined torque value.

9. (original) The method of claim 8, further comprising comparing at least one motor parameter value to a corresponding expected parameter value when the torque command is zero, the at least one motor parameter value including the motor current.

10. (original) A method for monitoring torque in an electric motor disposed in a vehicle having an engine and a power source, the power source being connected to the motor and at least one other vehicle electrical load, the method comprising:

measuring current of the motor;

determining a first torque based on the measured current;

determining speed of the motor;

determining a first motor power, the first motor power being a function of power output from the power source and a power loss for the motor, the power loss including at least one of, an electrical power loss of the motor, a mechanical power loss of the motor, and power consumed by the at least one other vehicle electrical load;

determining a second torque, the second torque being a function of at least the first motor power and the motor speed; and

comparing the first torque to the second torque when the motor speed is above a predetermined speed.

11. (original) The method of claim 10, wherein comparing the first torque to the second torque includes calculating a difference between the first and second torques, and comparing the difference to a first predetermined torque.

12. (original) The method of claim 10, wherein determining the first torque includes comparing the measured current to current values in a table, and determining the torque corresponding to the measured current.

13. (original) The method of claim 10, further comprising:

determining a second motor power, the second motor power being a function of at least motor voltage and motor current; and

comparing the first motor power to the second motor power when the motor speed is at or below the predetermined speed.

14. (original) The method of claim 13, wherein comparing the first motor power to the second motor power includes calculating a difference between the first and second motor powers, and comparing the difference to a predetermined motor power.

15. (original) The method of claim 10, the motor being a three phase motor having three motor currents, the method further comprising verifying the motor current measurement, the verification including summing the three motor currents and comparing the current sum to a predetermined current value.

16. (original) The method of claim 10, further comprising:
determining speed of the engine; and
comparing the measured motor speed to the determined engine speed.

17. (original) The method of claim 10, the motor receiving a torque command, the method further comprising calculating a difference between the first torque and the torque command, and comparing the difference to a second predetermined torque value, the second predetermined torque value being based on an allowable acceleration deviation of the vehicle.

18. (original) A system for monitoring torque in an electric motor having a power source connected thereto, the motor being in communication with a motor controller, a first sensor configured to facilitate determination of motor speed, and at least one current sensor for measuring motor current, the system comprising:

a first controller in communication with the motor controller and the sensors, the first controller being configured to receive an input related to the motor speed from the first sensor and receive an input related to the motor current from the at least one current sensor, the first controller being further configured to determine a first motor power, first and second torques, and to compare the first torque to the second torque when the motor speed is above a predetermined speed, the first motor power being a function of power output from the power source and a power loss for the motor, the first torque being a function of at least the motor current, the second torque being a function of at least the first motor power and the motor speed.

19. (original) The system of claim 18, wherein the first controller is further configured to determine a second motor power, and to compare the first motor power to the second motor power when the motor speed is at or below the predetermined speed, the second motor power being a function of at least voltage and current in the motor.

20. (original) The system of claim 18, the motor being a three phase motor having three motor currents, wherein the first controller is further configured to verify current measurement of the at least one current sensor, the verification including summing the three motor currents and comparing the current sum to a predetermined current value.

21. (currently amended) The system of claim 18, the first sensor including a speed sensor configured to measure an angular position of the motor, wherein the first controller determines the motor speed based on the measured change in the angular position of the motor over a known period of time.

22. (currently amended) The system of claim 18, the motor receiving a torque command, wherein the first controller is further configured to calculate a difference between the first torque and the torque command, and compare the difference to a second predetermined torque value.

23. (original) The system of claim 22, further comprising a second controller in communication with the first controller, the second controller being configured to compare at least one motor parameter value to a corresponding expected parameter value when the torque command is zero, the at least one motor parameter value including the motor current.